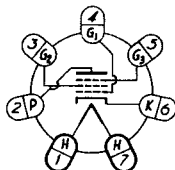


PENTODE
TRIPLE GRID POWER AMPLIFIER
Heater Type Glass Bulb

The 59 is a triple grid type power amplifier tube designed for service as a Class A triode, Class A pentode or Class B triode power amplifier in the output stage of a-c operated receivers.



BOTTOM VIEW OF SOCKET

RATINGS

Heater Voltage (a-c or d-c)	2.5	volts
Heater Current	2.0	amp
Maximum Plate Voltage - Class A	250	volts
Maximum Plate Voltage - Class B	400	volts
Maximum Screen Voltage	250	volts

AMPLIFIER - CLASS A

Triode Connection† Pentode Connection‡

Plate Voltage	250	250	volts
Screen (Grid #2) Voltage		250	volts
Grid (#1) Bias	-28	-18	volts
Amplification Factor	6	100	
Plate Resistance	2300	40000	ohms
Transconductance	2600	2500	μmhos
Plate Current	26	35	ma
Screen Current		9	ma
Load Resistance	5000*	6000	ohms
Total Harmonics	5	7	percent
Power Output	1.25	3	watts

AMPLIFIER - CLASS B - TWO TUBES

Grid #1 connected to grid #2

Grid #3 connected to plate

Maximum Plate Voltage	400	volts
Maximum Peak Plate Current (per tube)	200	ma
Maximum Average Plate Dissipation (per tube)	10	watts
Maximum Average Grid (#1 and #2) Dissipation (per tube)	1.5	watts

Typical Operation:

Plate Voltage	300	400	volts
Grid (#1 and #2) Bias	0	0	volts
No-Signal Plate Current (per tube)	10	13	ma
Load Resistance (plate to plate)	4600	6000	ohms
Power Output (approximate)	15	20	watts

The voltage between heater and cathode should be kept as low as possible where they are not directly connected.

†Grids #2 and #3 connected to plate.

‡Grid #3 connected to cathode.

*Approximately twice this value is recommended when the tube is used as driver for a Class B stage.

